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# THE OVERCROWDED ELEMENTARY-SCHOOL COURSE OF STUDY

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One of the greatest educational problems of the present generation is that of the overcrowded condition of the elementary-school course of study. This problem has been grappled with very effectively in the past few years by committees of the National Education Association and by others, but much remains to be done. The excuse for the present discussion of the problem lies in the attempt to suggest lines of attack which have had little or no emphasis but which, in the opinion of the writer, are very fundamental.

The key to much of the work which has been done is "elimination." The existing list of elementary-school subjects has been gone over with extreme care in an attempt to retain essentials and to omit non-essentials. In this way an enormous amount of material has been dropped by the schools, time has been gained, and hurry and waste avoided. There is no doubt about the great value of such work. It is the main thesis of this paper that the benefits thus derived would be greatly enhanced if a large amount of reorganization of subjects were to precede and supplement the attempts at elimination.) Reorganization affecting the number of school subjects will first be considered.

The matter has been little discussed, yet anyone who will take the trouble to analyze the present situation can come to but one conclusion. *The elementary school is dealing with two or three times the necessary number of subjects.* This will be evident to anyone who will take fifteen or twenty elementary-school courses of study and make a list of all of the subjects which are outlined in any one of them. Such an examination will not fail to produce a list something like that which follows. This list may seem exaggerated, and in a sense it is, for not all of these subjects are taught coincidentally.

But each title does represent a course often found scheduled separately; and many of these courses are taught without reference to the fact that they are parts of more complete courses or, perhaps, actual duplicates of work elsewhere provided. (1) Geography, (2) physical geography, (3) elementary science, (4) nature study, (5) school gardening, (6) agriculture, (7) history, (8) civics, (9) current events, (10) primitive life, (11) elementary handwork, (12) manual training, (13) basketry, (14) typing, (15) mechanics, (16) mechanical drawing, (17) printing, (18) cooking, (19) sewing, (20) home decoration, (21) algebra, (22) geometry, (23) arithmetic, (24) number, (25) number-play, (26) physical education, (27) physiology, (28) hygiene, (29) folk dancing, (30) sense training, (31) plays and games, (32) athletics, (33) music, (34) drawing, (35) fine art, (36) picture study, (37) reading, (38) literature, (39) language, (40) composition, (41) grammar, (42) spelling, (43) phonics, (44) handwriting, (45) modern language, (46) ethics.

The causes of such an overwhelming list of titles are at least two: (1) A growing consciousness of the complexity of life, and a desire on the part of makers of courses of study to cover all life-phases. There is frequent discovery of something which has been omitted and which must be added to the list. (2) A failure to recognize the possibilities (*a*) that such omission is only fancied, and that the matter is really taken care of in another connection, or (*b*) that the material omitted may be used as new material in a course already scheduled, or taken care of by a mere change of emphasis within the old course. The modification of existing courses can often make new courses unnecessary.

It is clear that there has been a "hit-or-miss" multiplication of subjects, a looseness of phraseology, and a consequent overcrowding and loss. How should one go about correcting the difficulty? What is a "subject"? This question can best be answered by thinking of a total life-experience which is itself made up of a large number of rather definite type experiences. If the total life-experience were represented by a circle, and the individual experiences by dots within the circle, some of the dots would represent similar experiences and some would represent other kinds. Thus there might be many dots which represented experiences with

quantity—quantitative experience, number experience. The more important and typical of these number experiences, gathered together and organized, become the “subject” of mathematics, of which arithmetic (the school subject) is a part. Also in the total life-experience there would appear numerous dots (experiences) having to do with the relation of man to his environment. These, gathered together and organized, become the subject of geography.

With this conception of a “subject,” the most logical thing to do in order to determine the correct number of subjects would be to make a philosophical analysis of life, discriminate the essential types of experience, and allot a subject to each type. It is probable that this will be the ultimate method. But one does not need to await the slow process implied in such a plan. He can take an intermediate step which for the present will serve the purpose almost as well, and at the same time admit of immediate application. He can, as it were, come at the matter from the top downward by dealing in a practical way with the current list of subjects. Fragments may be brought together, duplications pointed out, and a gain looked for in the recognition of relationships. Subjects may thus be kept few and broad, and the various aspects of each (which in many cases have become separate subjects) may be cared for within the broad subject itself.

The effect of such a policy may be made apparent through a discussion of the list of forty-six subjects given above. The first subject on the list is geography. Conceived not as mere location, but as a real causal study of the relation of man to his environment, this subject has established its right to a place in the course. But physical geography should have no separate treatment. The emphasis upon it as an elementary-school subject arose, perhaps, out of the change in the conception of geography from the older locative idea to the newer conception of the relation of man to his environment. This relation first became emphasized as a separate idea in physical geography, but it has been realized that this first physical geography was really the first phase of the new conception of the old subject. Hence with the new teaching of geography the physical geography is included without being scheduled as a separate subject. In so far as there is an elementary-school

subject-matter of physical geography which is not now included in the ordinary geography course, it probably belongs in a general science course. This general science course, whose place is now at least tentatively admitted, would also absorb elementary science, and the science phase of nature study (the appreciation phase being transferred to the course in fine art), along with certain aspects of school gardening and agriculture.<sup>1</sup> Thus out of the first six subjects of the list only two great trunk-line subjects survive. These are geography and general science.

Perhaps the point needs to be raised as to whether geography is not itself a part of general science. It is not, as the subjects are here conceived. Geography is conceived "as the bridge which connects the natural sciences and the human sciences." A fact from the natural sciences (having to do with the environment) is brought into relation to a fact from the human sciences (the life of man), and so becomes a geographical fact. The course designated as general science has the function of providing the natural science facts which, when related to human-life facts, become geographical facts.

Continuing with the list, it is easy to see how history, civics, and current events, properly organized, belong together as one subject. If there is anything in civics which does not belong in history, it is not something which can contend for a place as a separate subject, but something which belongs in a more fundamental course which has to do with all of the next ten subjects on the list—primitive life, elementary handwork, manual training, basketry, typing, mechanics, mechanical drawing, printing, cooking, sewing, and home decoration.

Without entering upon a discussion of the history or principles of manual training instruction, the belief is here expressed that this subject has always been somewhat vaguely conceived as a sort of elementary sociology which is meant to interpret the relation of work (or activity) to life. In spite of the fact that only particular kinds of work have at times been emphasized, and in spite of overemphasis at certain periods upon skill alone, the main trend of the subject has been cultural in the sense mentioned.

<sup>1</sup> For other phases of agriculture and school gardening see industrial arts course.

Certainly today, when manual training courses have everywhere become industrial arts courses directed toward an understanding of the relation of industrial processes to life, the trend toward an emphasis upon the significance of work is clear. Through active participation children come to know and to appreciate the workers in all of those great industries whereby the world maintains itself. If now this attempt at interpretation could be expanded to include not only physical work but mental work as well, then the course under consideration could be focused upon the significance of all work in the life of man. It would then plan to develop right attitudes toward the universal necessity for work, the dignity of work, the joy of work, and the necessary modern division of work. Then children would grow up with the habit of regarding different types of work as mutually helpful instead of mutually antagonistic. The complementary function of labor and capital, for example, would be manifest. They would be habitually looked upon as necessary co-operating agencies instead of as antagonistic forces. Thus this course would become the main Americanization course. It would really be a great mistake to introduce into the already overcrowded course of study a new course to meet the problem of Americanization. All of our people, foreign and native alike, need to be Americanized; but since work is the central thing in life, and since all social problems revolve about attitudes of people toward work, the expanded manual training course could be made to represent America's most serious attempt to use the schools to solve her social problems. Here is a sociology which is elementary enough even for kindergarten children. Not a sociology *preached* as a set of formulated principles, but a sociology *lived* through organized participation in life-situations which ingrain the principles not as memorized precepts, but as habits of thought and action.

The proposal for the course mentioned does not contemplate any complete change in the content of existing courses, especially of existing industrial arts courses. It would only be necessary to expand these courses to include a consideration of agriculture, business, professions, etc., as well as industry. Then, through participation in all types of work activities, the pupil's attitudes

could be formed. In the upper grades, emphasis upon the division of work into men's work and women's work (manual training vs. home economics) would lead naturally to the prevocational and the vocational training which is now receiving so much emphasis. In fact the proposal to focus upon the significance of work already stands out most clearly at the point mentioned.

The conclusion from the foregoing discussion, therefore, is that all manual training and home economics subjects belong together as one great subject which interprets the significance of work to life. Certain material for this course could be handled from the earliest to the latest grades. But because work (activity) has to do with earth facts and life facts, and since these facts are also the background for history, geography, and general science, the course could be made to carry the material of all of these courses up to the fourth grade. From that point the "work" subject could still be continued alongside of history, geography, and general science pursued as separate subjects. This would be in line with the present policy of not scheduling history, geography, and science separately until the fourth grade. It would also be in line with the tendency to keep the child's school life more of a unity in the lower grades and provide for more differentiation in the upper grades. And it would have the added value of providing for the "roots" of the subjects which start in the fourth grade, instead of leaving them "hung up" as if they really sprang into being newly created in the fourth grade without previous foundation. According to this view, primitive life would be represented without its being offered as a separate subject, since the activities of primitive peoples would often be chosen as the center of the "work" course because, as Dewey says, in them life is reduced to its simplest and most understandable aspects.

Subjects 10-20 on the list, therefore, will be conceived as one subject with the title of industrial arts, or human work, or elementary sociology. Its central theme will be co-operation in activity (including leadership, of course, as a part of co-operation), and its method will be participation, not preaching.

Concerning algebra and geometry in the elementary-school course, the common-sense position to take is that in an overcrowded

course there is no place for them as separate subjects. The eighth-grade course might deal with some aspects of generalized quantity including some of the laws of the equation; but it should deal with them primarily as generalized arithmetic, rather than as a definite attempt to teach algebra or geometry as such. If time presses, even the work just suggested might be eliminated in favor of fundamentals in whole numbers and decimal and common fractions, together with some small knowledge of interest and percentage. Moreover, since number and number-play are only other names for a primary arithmetic, it is far better to include all of the subjects from 21 to 25 under the one subject of arithmetic.

The next seven subjects on the list belong to a physical education group. It is certain that if the material implied in the titles from 26 to 32 inclusive were organized into one great trunk-line course which had to do with the welfare of the body both in theory and practice, there would be much more success in the field in question than there is when the elements are treated separately and in an unrelated manner, as at present. The amount of possible elimination would also be much clearer, and the essentials would get the emphasis which they should have.

The thirty-third course, music, has made a firm place for itself and has remained unified so that there is no recombination to be made. Drawing and fine art, however, have such a relationship to each other that they can readily be combined under the title "fine arts." Drawing alone, conceived as mere representation, would not be sufficient. The emotional side of man's nature, the appreciation side, demands its development, and fine art as a study of the appreciation of beauty has been altogether too much neglected. We have been a practical nation, looking to utility without much regard for beauty and without the resource of joy in beauty, which joy goes so far toward making for contentment, and a really sane, normal, and happy life. Drawing, or representation, as a means of recognition and control of beauty is very important as a part of the fine arts course. As mechanical drawing, it is very important as a part of the industrial arts course; but as a separate



course it has no place.<sup>1</sup> Subject 36, picture study, is, of course, only a part of the fine arts course. It will be remembered also that it is suggested that this course absorb the appreciation side of nature study, just as the science course takes over the science aspect of that subject. Then there is no reason for a separate nature study course.

Subjects 37 and 38 (reading and literature) can well be treated as one course. Language and composition are only different names for a single subject, and grammar is an upper-grade aspect of the same course. Spelling, combined with phonics and supplemented by certain word analysis, should become the enriched course, word study. Handwriting and modern language must stand alone, as must ethics also, if it is retained at all. There has always been a controversy as to whether ethics can be successfully taught as a formal subject; and with such strong ethical courses as the human work course, it would seem that the separate ethics course could be omitted.

It seems desirable at this point to introduce a caution against the error of regarding the proposals made above as merely involving a "bracketing" which only disguises the number of subjects and leaves just as many to be taught as ever. The idea is deeper than that. In each case the material of the related subjects is to be reconsidered, reselected, and reorganized into a single compact trunk-line subject with a single and proportionate time allotment. Of the original list of forty-six courses, there remain the following: geography, general science, history, industrial arts (human work), arithmetic, physical education, music, fine art, reading (including literature), composition (including upper-grade grammar), spelling, handwriting, and a modern language. Of this list, all may be continuous throughout the grades, except that in the first three grades geography, general science, history, and industrial arts would be taught together as a composite subject which would

<sup>1</sup> It is desirable to make certain that the industrial arts course, or human work course, should not be confused with the fine arts course. The function of the human work or industrial arts course is that of interpreting the relation of work to life. The function of the fine arts course is the interpretation of beauty in life.

furnish a background for the individual subjects when they were differentiated in the fourth grade.

With such a comparatively short list of subjects, censored for eliminations, and in certain grades, alternated somewhat as to days per week, there could be little complaint of an overcrowded curriculum. Indeed, under such circumstances, there would be opportunity to add courses if experience or life-analysis seemed to call for them. Such a call for one new subject is, in truth, very evident at the present time. With the growing conviction that facts have multiplied until it is foolishness to demand the memorization of all of them, and with the supplementary conviction that therefore much of the work of the schools should be that of teaching children how to study (how to think), there is a growing demand for real school training of this sort. Teaching children *how to study* is a very different thing from *studying with* children. Teachers study with children more or less in all subjects, but the children do not easily catch the method when it is handled in this incidental way.

With the number of subjects determined, reorganization within the subjects themselves becomes the important consideration. Such reorganization should clearly and definitely provide for "cumulative effect." Relationships should be sensed and order of materials arranged so that the work of one grade is built upon the work of the previous grade. Part of this matter of order cares for itself, since the teaching of some things is possible only after certain other things are known. But where a variable order is possible there is usually a best order, depending upon the relationships involved. Teachers could, and often do, deal with division, fractions, percentage, in almost any order; but the order given is the economical one because, when the principles of division are properly taught, they apply in fractions, each fraction being regarded as an indicated division, and the necessary work upon fractions is largely diminished. In the same way, the identical principles apply in percentage and a like economy results, as opposed to the loss arising from the neglect of the existing relationship. This is also true of subjects not so definitely logical as is arithmetic. One could teach about the Civil War before looking

into the manner of life in the South before the war; but time and efficiency would be sacrificed by so doing, because of lack of interpretative material for the war study.

Reorganization should also provide for more careful regard for the stages of mental growth. It is definitely established that there are periods of development, not sharply separated, but gradually and somewhat irregularly shading into one another. These should be taken into account. The stage of delight in fairy stories, for example, should be reflected in the reading and literature; the early love of primitive life should not be disregarded, and memory work and thought work must be correctly balanced and each correctly emphasized in the changing life of the child. These are illustrations only. The psychology of mental development must be fully recognized as a factor conditioning the order of the presentation of all subject-matter.

With regard to the spiral order of arrangement of subject-matter, discrimination should be used. The spiral order must be employed. One cannot learn all about a certain thing at once. The mind gets at first a vague view which must be filled out afterward. But it should be remembered that the filling out of the large idea must come through focalization upon and mastery of smaller ideas. Something must be learned well and added to something else learned well, and the process continued until the larger idea is understood. This means a rejection of the ceaseless nibbling which never definitely seizes upon and fully digests anything. Something must be finished once for all. The vague boundaries may be continually extended, but at the same time the stock of relatively finished work must be definitely increased. To attempt by the mere repetition of vagueness to arrive, finally, at full knowledge is to court failure.

It only remains to repeat, therefore, the argument made at the beginning: In the matter of the overcrowded course of study, dependence should be put not alone upon elimination of material from subjects already scheduled, but also upon a reorganization of subjects which diminishes their number and which takes account of "cumulative effect," stages of mental growth, and correct spiral order.